CLAIMS

1. Method for optimizing shifting strategies as a function of strip width for the best possible utilization of the advantages of CVC/CVC^{plus} technology in the operation of strip edge-oriented shifting in four-high and six-high rolling stands, comprising a pair of work rolls (10) and a pair of backup rolls (12) and, in addition, in the case of six-high rolling stands, a pair of intermediate rolls (11), wherein at least the work rolls (10) and the intermediate rolls (11) interact with axial shifting devices, and wherein each work roll/intermediate roll (10, 11) has a barrel lengthened by the amount of the CVC shifting stroke with a one-sided setback y(x) in the area of the barrel edge, characterized by predetermination of the shift position (VP) of the shiftable work roll/intermediate roll (10, 11) as a function of the strip width, according to which the work roll/intermediate roll (10, 11) is positioned in different positions (P) relative to the strip edge (14), and within different strip width regions (B), the shift position (VP) of the given roll is predetermined by a piecewise-linear step function.

2. Method in accordance with Claim 1, characterized by the fact that depending on the material properties, the free parameters of the step function can be variably selected in such a way that the predetermined positions (P) relative to the strip edge (14) are established.

3. Method in accordance with Claim 1, characterized by the fact that the strip edge-oriented shifting of the work rolls/intermediate rolls (10, 11) is carried out in such a way that the rolls are each symmetrically shifted relative to the neutral shift position ($s_{ZW} = 0$ or $s_{AW} = 0$) in the stand center by the same amount axially towards each other.

4. Rolling mill comprising four-high or six-high rolling stands in a CVC design with a pair of work rolls (10) and a pair of backup rolls (12) in the case of a four-high rolling stand and, in addition, in the case of a six-high rolling stand, a pair of intermediate rolls (11), wherein at least the work rolls (10) and the intermediate rolls (11) interact with axial shifting devices, for carrying out the method in accordance with one or more of Claims 1 to 3, characterized by the fact that each of the shiftable work rolls/intermediate rolls (10, 11) of the rolling stands has a symmetrical barrel that is longer by the amount of the axial CVC shifting stroke and is provided with

a curved roll contour with superimposed (CVC/CVC^{plus} cross section) and with a one-sided setback (d).

5. Rolling mill in accordance with Claim 4, characterized by the fact that the curved roll contour (CVC/CVC^{plus} cross section) is described by the equation $R(x) = R_0 + a_1 \bullet x + a_2 \bullet x^2 \ldots + a_n \bullet x^n$, where R_0 is the initial barrel radius.

6. Rolling mill in accordance with Claim 5, characterized by the fact that the length (l) of the one-sided setback y(x) of the work rolls/intermediate rolls (10, 11) is divided into two adjacent regions (a) and (b), such that the first region (a), beginning with the radius (R_0), obeys the equation of the circle $(l - x)^2 + y^2 = R^2$, and the region (b) runs linearly, from which the following setback y(x) or the following diameter reduction $2 \bullet y(x)$ is obtained for these regions due to the dimension resulting from the roll flattening:

<u>Region</u> <u>a</u>:

$$= (R^2 - (R - d)^2)^{1/2} \quad \Rightarrow \quad y(x) = d = R - (R^2 - (l - x)^2)^{1/2}$$

<u>Region</u> <u>b</u>:

$$= l - a \quad \Rightarrow \quad y(x) = d = \text{constant}.$$

7. Rolling mill in accordance with Claims 4 and 5, characterized by the fact that the transition of the setback y(x) between the regions (a) and (b) is made with a sequential setback of the dimension (d) resulting from the roll flattening according to a predetermined table.

8. Rolling mill in accordance with one or more of Claims 4 to 7, characterized by the fact that the rolling stands have a geometrically identical set of rolls.